

ORDER

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GENERAL MAINTENANCE LOGGING HANDBOOK



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FOREWORD

This order provides procedures and guidance regarding the logging of maintenance and administrative activities and events at all National Airspace System (NAS) facilities. This order supplements the current version of Order 6000.15, General Maintenance Handbook for Airway Facilities. Accurate, timely, and accessible information regarding activities and events, which affect facilities, is critical to the management of the NAS and is necessary to capture essential logging activities.

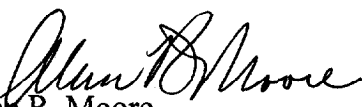

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CHAPTER 1. GENERAL

1. PURPOSE.

This order provides direction for performing logging of maintenance and administrative activities. Logging provides a means for documenting equipment performance and providing a historical record of site events.

2. DISTRIBUTION.

This order is distributed to the division level in Airway Facilities, Air Traffic, Flight Standards, and Airports Safety and Standards in Washington; to the Logistics Center and the Academy at the Aeronautical Center; to the division level at the ATC Engineering and Test Division and the CNS Engineering and Test Division at the Technical Center; to branch level in the regional Airway Facilities, Air Traffic, Flight Standards, and Airports Divisions; and to Airway Facilities and Air Traffic field offices with a standard distribution.

3. CANCELLATION.

Order 6000.48, General Maintenance Handbook for Automated Logging, dated December 1, 1993, is canceled.

4. EFFECTIVE DATE.

This order is effective May 1, 2001.

5. BACKGROUND.

a. Airway Facilities (AF) automated record keeping capabilities have evolved over many years. The Maintenance Management System (MMS) is the automation tool used by AF. Using Simplified Automated Logging (SAL) provides a new graphical user interface. SAL does not contain the same functionality as MMS logging but rather a "simplified" subset of functions.

b. MMS assigns three-letter log abbreviation codes for each logging screen commonly known as the "log type". This order adopts the log abbreviation code as a standard and should now be used regardless of the logging method.

6. EXPLANATION OF CHANGES.

This revision incorporates changes resulting from field, regional, and headquarters comments, organizational realignment, and the evolution of the National Airspace System (NAS). These changes include:

a. Revising the logging procedures to make them generic and applicable to any logging method.

b. Adding the logging procedures removed from the revision of 6000.15B, General Maintenance Handbook for Airway Facilities.

c. Moving specific logging procedures for each logging method to a Standard Operating Procedures (SOP) format available online at: <http://www.faa.gov/ats/aaf/aop/300/logging/>.

d. Changing procedures on interrupt reporting giving the responsibility to the appropriate AF control center.

e. Reducing the number of log type MMS screens from 14 to 9.

f. Changing procedures for logging Flight Inspections (LFL), Technical Evaluations (LTE), Equipment Commissioning (LFC), Equipment Installation (LEQ), and Special Projects (LSM) to Administrative/General (LAD) log types.

g. Defining events and activities with respect to logging requirements.

h. Deleting Chapter 5 on PC MMS because it is no longer supported.

i. Moving Chapter 6 on aircraft accident logging procedures to the appropriate SOP.

j. Added a chart, (Table 3-1) depicting all possible cause codes.

k. Added Activity Codes, (Table 3-2), for logging maintenance and administrative activities.

l. Added a requirement for data standardization.

7. DEFINITIONS.

Appendix 1, Definitions, lists definitions that explain the various terms used by AF maintenance personnel during logging activities.

8. GENERAL FACILITY LOGGING PHILOSOPHY.

The need for proper and thorough documentation of equipment performance and activities at NAS facilities cannot be overemphasized. Simply stated, the job is not finished until the documentation is complete. The AF philosophy is to document all events relevant to the performance and/or operation of all NAS facilities. Logging shall be timely, accurate, and performed in a uniform manner using standard definitions, criteria, terminology, and procedures. This provides information for determining and evaluating the operations and maintenance history of NAS facilities and services.

9. LOGGING PROCEDURES.

Several methods are available for logging maintenance and administrative activities. Standard Operating Procedures (SOP) shall be used for procedures specific for any given logging method. The Paper Logging SOP shall be used for paper logging procedures. The

MMS Logging SOP shall be used for MMS logging procedures. The SAL Logging SOP shall be used for SAL logging procedures.

NOTE: These SOPs are available online at: <http://www.faa.gov/ats/aaf/aop/300/logging/>.

10. LOG ENTRY AUTHORITY.

Log entry authorization shall be made a matter of written record as per the latest version of Order 6000.15, General Maintenance Handbook for Airway Facilities.

11. CLASSIFIED LOGS.

Order 1600.54, FAA Automated Information Systems Security Handbook prohibits the storage of classified data in electronic format. Procedures for logging at classified facilities are contained in SOP (Reference the paper SOP).

12. LOAN OF MAINTENANCE LOGS.

Neither access to, nor copies of, the maintenance log shall be provided to anyone outside the FAA without prior approval of the regional AF division of concern or the FAA AF headquarters. Hard copies approved for non-FAA use shall be certified as representing maintenance log entries for the periods addressed and signed by the System Management Office (SMO) manager or designee.

13. RECOMMENDATIONS FOR CHANGES.

Pre-addressed comment sheets are provided at the back of this order. Users are encouraged to submit recommendations for improvement.

14. - 19 RESERVED.

CHAPTER 2. LOG ENTRY TYPES

20. INTRODUCTION.

a. Events, as used in this order, are those occurrences that give rise to maintenance activities. The system specialist shall log certain activities performed in response to the event. Each log entry type corresponds to a specific activity performed within a maintenance event and is classified as scheduled, unscheduled, or administrative in nature.

b. This chapter lists the types of log entries and the associated log type abbreviation code. It includes a general description of the log entry type and the activities performed. Detailed procedures for making log entries are contained in the appropriate SOP.

c. An example of a scheduled maintenance event would be "Periodic Maintenance" where the specialist would perform various activities which are logged: Site Arrival and Departure, Removal/Return of Equipment from Service, Performance of Maintenance Tasks, Equipment/Service certification and Administrative Tasks.

d. Maintenance activities or events that are the result of or require the removal of a facility/service from operation require an interruption report log entry (LIR) in addition to the required maintenance log entry. Maintenance activities with no facility/service interruption only require the applicable log entry.

21. CORRECTIVE MAINTENANCE (LCM).

This log entry shall be used to record corrective maintenance actions performed on specific facilities, systems, subsystems or equipment modules. A detailed description of all

corrective maintenance tasks performed shall be entered. Data is entered by personnel performing the corrective maintenance. Maintenance may be performed on-site or via remote maintenance monitoring (RMM) access.

22. FACILITY/SERVICE CERTIFICATION (LCE).

This log entry shall be used to record either scheduled or unscheduled certifications. The time used for certification shall be the time when the entry is made. The certification statement shall be made for a service, system, or subsystem by the specialists in accordance with the appropriate maintenance technical handbook. This type of log entry shall also be used for decertification.

23. EQUIPMENT MODIFICATION (LEM).

This log entry shall be used to record system, subsystem, and equipment modification information including the issuing organization, modification number and status, etc. A separate LEM entry shall be made for each modification performed.

24. INTERRUPT REPORT (LIR).

All reportable facility or service interruptions shall be recorded using this log entry. The current version of Order 6040.15, National Airspace Performance Reporting System, and regional policy determine the reporting requirements. The log entry shall only contain the duration of the interruption, and specific comments regarding coordination. LIR entries shall be made by the AF control center specialist. An LIR requires a supporting log entry such as an LPM, LCM, LEM, or LAD.

25. LINE/FREQUENCY (LLF).

This log entry shall be used to record dates, time and coordination information for a line, frequency, or channel problems. LLF entries shall be used for both FAA and contract lines, frequencies, or channels not connected to a reportable facility in the FSEP. LLF entries shall be made by the AF control center specialist.

26. PERIODIC MAINTENANCE (LPM).

This log entry shall be used to record Periodic Maintenance (PM) task accomplishments. LPM entries may be automatically generated by a scheduling program and then closed by a system specialist when the task is completed. The LPM records are used to produce PM accomplishment reports. LPM entries may also be made manually.

27. REMOTE MONITORING (LRM).

This log entry provides a historical record by automatically logging all remotely monitored events and alarm acknowledgements.

28. SITE ARRIVAL & DEPARTURE (LST).

a. This log entry records site arrival times, departure times, and travel times when visiting an unmanned location.

b. Site arrival and departure information shall be logged to record arrival and departure times when visiting facilities without a permanent staff or on callback to a duty station. The log entry shall contain the reason for the site visit if not contained in another log entry, and any associated one-way travel. At locations with multiple facilities, LST entries shall be made in the primary facility log as listed in the current version of Order 6000.5 Facility Service Equipment Profile, Appendix 5, Preferred Designation of Primary Facilities, unless dictated otherwise by regional or local policy.

c. Visits by personnel without log entry authority shall be recorded using an LAD unless arriving with a specialist making an LST. The purpose of the visit shall be included in the log entry.

29. ADMINISTRATIVE/GENERAL (LAD).

a. This log entry shall be used to support administrative, general, and all other logging activities not directly supported by a specific log entry type.

b. The LAD log entry shall be used as the parent log in the event of an aircraft accident. All details of the situation, including all findings and coordination relating to the event shall be included in the log entry.

c. The LAD log entry shall be used for:

(1) Delivery or shipment of supplies, parts, instruments and equipment.

(2) Any significant irregularities such as pilferage, vandalism, or violation of security.

(3) Adverse weather conditions that effect facility status.

(4) Commercial power failures that do not result in facility outage.

(5) Site access restrictions, or access road conditions deemed to have an effect on facility status.

(6) Equipment performance examinations.

(7) Technical evaluations.

(8) Flight inspections.

(9) Commissioning and decommissioning.

(10) Visits by regional headquarters or non-FAA personnel.

(11) Facility log review.

CHAPTER 3. LOGGING FORMAT

30. INTRODUCTION.

This chapter provides guidance for the format and type of information captured in the log. Entries in the log shall provide a complete historical accounting of maintenance and administrative activities by a chronological order of events.

31. GENERAL CHARACTERISTICS.

a. Log content shall be accurate, complete, clear, concise, and entered in a timely manner. Elaborate details and opinions shall be avoided. The use of approved contractions and reference to substantive records and directives should be used when describing maintenance activities.

b. Electronic logs shall be stored in a nationally standardized database and shall be used at all facilities requiring maintenance logs in accordance with the latest edition of Order 6000.15, General Maintenance Handbook for Airway Facilities.

c. All NAS facilities in the Facilities Service and Equipment Profile (FSEP) shall use a standardized data format in accordance with national standards. A standardized model database shall be provided for each facility by headquarters.

32. CODE CATEGORY (CODE CAT).

All log entries shall be coded. Codes are used to define the type of activity being logged. The two types of Code Categories are Cause Codes and Activity Codes.

a. **Cause Codes.** Cause Codes are used for logging interrupts and outages.

(1) Cause codes were designed to identify causes of interruptions.

(2) Cause codes shall only be used with LIR or LLF log entry types.

(3) Cause codes are listed in Table 3-1, Cause Codes for Interrupts, and defined in Order 6040.15, National Airspace Performance Reporting System.

b. **Activity Codes.** Activity Codes are used for logging maintenance and administrative activities.

(1) Activity codes were designed to identify maintenance and administrative activities that AF personnel perform.

(2) Activity codes shall be used with every log type except LIR and LLF.

(3) Since some log types have been eliminated, it is necessary to use Activity Codes to identify those types of log entries.

33. USING ACTIVITY CODES.

Activity codes are listed in Table 3-2, Activity Codes for Log Types, and defined as follows:

a. 00 - Administrative.

b. 01 - Log review. This code is limited to the periodic management log review.

c. 02 - Entries resulting from routine Air Traffic (AT) log review ("E" entries) as identified in the current version of Order 6000.15, General Maintenance Handbook for Airway Facilities.

d. 03 - Aircraft accident/incident. LAD entries, which relate to any aircraft accident or incident, shall use a code 03.

e. 04 - Commissioning. Used to document the commissioning of a facility.

f. 05 - Decommissioning. Used to document the decommissioning of a facility.

g. 06 - Install/Special Project. Used to document equipment installations and other special projects.

h. 07 - Radio Freq Interference. Used to document activities related to radio frequency interference events.

i. 08 - Vandalism.

j. 09 - Performance Examination.

k. 10 - Arrive/Depart an unmanned site.

l. 50 - Periodic Maintenance.

m. 51 - Certification.

n. 52 - Decertification. Code 52 shall be used when any certification is removed from a service, system, or equipment.

o. 53 - Flight Inspection.

p. 54 - Technical Evaluation.

q. 55 - PM not performed or incomplete after latest date. Code 55 shall be used on partial PM completion entries.

r. 56 - Software Modification.

s. 57 - Equipment Modification.

t. 58 - Corrective Maintenance.

u. 59 - Other.

34. LOG IDENTIFICATION NUMBERS.

Each log entry shall have a unique log identification number assigned by the electronic logging system.

35. DATES AND TIME.

All date and time fields shall be made in Coordinated Universal Time (UTC). Electronic log entries shall be automatically date- and time-stamped when made and considered part of the official maintenance log at that time. For example, data entered on a Maintenance Data Terminal (MDT) in a disconnected mode is considered official even before upload occurs.

36. CORRECTIONS.

Logs are official records and shall not be deleted. Erroneous entries shall be voided or corrected and shall contain an explanation for the change.

37. SECURITY.

a. **System Access.** Security in the electronic system shall be maintained through a layered access authorization requiring password entry to system functions. Authorized users will be granted general logging access to the system as a whole and specific certification access according to requirements and qualifications.

b. **Authorization.** The user's initials/user ID and password is required as authenticating identification with each log entry.

(1) No two employees shall be assigned the same set of initials within the same cost center code. No employee shall be assigned more than one user ID within the same MPS.

(2) Multiple-party entries shall have the originator's (person making the entry) initials/user ID entered and the additional parties shall be identified in the comments.

(3) Input From Sources Outside the Airway Facilities SMO. Each statement regarding facility operations or status made by Air Traffic, Flight Inspection, or other FAA organizational representatives shall be entered into the log by designated personnel only. The source of the statement shall be identified by initials and organization. Statements from non-FAA sources shall be identified by last name and organization. With facility work projects, the name of the person in charge of the project shall be noted. Any known effects of the project on facility operation or status shall be included in the entry.

c. **System Administration.** Access to other subsystems such as security, data base maintenance, and high-level report functions will be granted in accordance with the needs and responsibilities of the individual users.

38. PROCEDURAL GUIDELINES FOR LOGGING.

a. Each maintenance event shall be determined to be "scheduled" "unscheduled" or "administrative" in nature. See Table 3-1.

b. If the maintenance event changes from scheduled to unscheduled and an interrupt report has been generated, the initial interruption and supporting log entries shall be closed and new log entries shall be generated with the appropriate unscheduled code categories.

39. RESERVED.

Table 3-1 Cause Codes for Interrupts.

			LOG TYPE								
	CAUSE CODE	ACTION	LIR	LAD	LCM	LEM	LLF	LPM	LCE	LST	LRM
S	60	Periodic Maintenance	X				X				
C	61	Non-FAA Circuits	X				X				
H	62	Improvements	X				X				
E	63	Flight Inspection	X								
D	64	Administrative	X				X				
U	65	Corrective Maintenance	X				X				
L	66	Software	X				X				
E	67	Reserved	X				X				
D	68	Related	X				X				
	69	Other	X				X				
U	80	Equipment	X				X				
N	81	Non-FAA Circuits	X				X				
S	82	Prime Power	X				X				
C	83	Standby Power	X				X				
H	84	Interference	X				X				
E	85	Environmental	X				X				
D	86	Software	X				X				
U	87	Unknown	X				X				
L	88	Related	X				X				
E	89	Other	X				X				
D											

Table 3-2 Activity Codes for Log Types.

			LOG TYPE								
	ACTIVITY CODE	ACTION	LIR	LAD	LCM	LEM	LLF	LPM	LCE	LST	LRM
ADMINISTRATIVE	00	Administrative		X							X
	01	Log Review		X							
	02	"E" Entry		X							
	03	AC Accident/Incident		X							
	04	Commissioning		X							
	05	Decommissioning		X							
	06	Install/Special Project		X							
	07	Radio Freq Interference		X							
	08	Vandalism		X							
	09	Performance Exam		X							
	10	Site Arrival/Departure								X	
MAINTENANCE	50	Periodic Maintenance						X			
	51	Certification							X		
	52	Decertification							X		
	53	Flight Inspection		X							
	54	Technical Evaluation		X							
	55	PM Not Performed						X			
	56	Software Modification				X					
	57	Equipment Modification				X					
	58	Corrective Maintenance			X						
OTHER	59	Other		X							

CHAPTER 4. ACTIVITIES REQUIRING LOG ENTRIES

40. INTRODUCTION.

This chapter provides direction for logging maintenance activities. A maintenance activity is defined as a response to a maintenance event, whether scheduled, unscheduled, or administrative. Although this directive cannot specifically encompass all possible activities, the scope of events described is intended to clarify most situations. Procedures for logging maintenance activities are contained in the appropriate SOP to further clarify required actions.

41. PERIODIC MAINTENANCE.

a. The accomplishment of Periodic Maintenance (PM) activities shall be logged. Periodic maintenance is derived from the maintenance technical handbooks, technical instruction books, or other sources and is typically scheduled in advance.

b. Periodic maintenance activities that require the removal of a facility/service from operation require an interruption report. Periodic maintenance activities with no facility/service interruption only require the periodic maintenance entry.

c. Other activities performed during a periodic maintenance event may also require log entries. These may include site visit, corrective maintenance, and certification.

42. CORRECTIVE MAINTENANCE.

a. Corrective maintenance activities requiring logging include performing restoration, fault identification, diagnostics, alignment, troubleshooting, repair, and module replacement.

b. Corrective maintenance activities that require the removal of a facility/service from operation require an interruption report. If the interruption is unscheduled, the supporting LCM shall be related to the LIR. Corrective maintenance activities with no facility/service interruption only require the corrective maintenance entry.

c. Other activities performed during a corrective maintenance event may also require log entries. These may include site visit and certification.

43. MODIFICATIONS.

a. Modifications to systems, subsystems, and equipment shall be logged using an Equipment Modification (LEM) entry. Modifications are tracked and documented to ensure accuracy with system configuration.

b. Modification activities that require the removal of a facility/service from operation require an interruption report. Modification activities with no facility/service interruption only require the equipment modification entry.

c. Other activities performed during an equipment modification may also require log entries. These may include site visit, periodic maintenance, corrective maintenance, and certification.

44. FLIGHT INSPECTION.

a. Flight inspection activities shall be logged using an Administrative/General (LAD) log entry. Personnel shall document the flight inspection aircraft tail number in the log entry.

b. Flight inspection activities that require the removal of a facility/service from operation

require an interruption report. Flight inspection activities with no facility/service interruption only require the LAD entry.

c. Other activities performed during a flight inspection event may also require log entries. These may include site visit, periodic maintenance, corrective maintenance, and certification.

45. AIRCRAFT ACCIDENTS/INCIDENTS.

a. Activities related to aircraft accidents/incidents shall be logged. Following notification of an aircraft accident/incident, the appropriate AF control center, the AF Aircraft Accident Representative (AFAAR), and System Management Office (SMO) personnel will have responsibilities concerning the event. Only the AF control center and SMO personnel have logging responsibilities.

b. The accident AFAAR makes decisions about AF involvement and contacts one or more AF control centers as necessary to implement investigative decisions.

c. AF control centers are the focal points for all coordination and communication for aircraft accident/incident events within their boundaries of responsibility. Each AF control center shall establish a single LAD log entry to document pertinent coordination and communications.

d. SMO personnel shall document all their activities required by the AFAAR.

e. Maintenance activities in response to an aircraft accident/incident may include site visit, corrective maintenance, flight inspections, and certification. The specific logging procedures contained in the appropriate logging SOP shall be used.

NOTE: These SOPs are available online at:
<http://www.faa.gov/ats/aaf/aop/300/logging/>.

f. Further guidance may be found in the current version of Order 8020.11, Aircraft

Accident and Incident Notification, Investigation, and Reporting.

46. COORDINATION.

a. Coordination entries concerning operational channel changes, equipment transfer actions, shutdown, or restoration shall state the organizational element and initials of the person(s) contacted; i.e., AFSS (JS), ARTCC (LC), AT (RD), and approvals granted.

b. Coordination events that require the removal of a facility/service from operation require an interruption report. Coordination activities with no facility/service interruption only require the LAD entry.

47. TECHNICAL INSPECTIONS/EVALUATIONS.

a. Technical inspections and evaluation events shall be documented using the LAD entry. Information to be entered includes classification as a routine, special, or accident related event and documentation of any exceptions. The log entry should include a reference to the inspection report, along with any other pertinent details.

b. Other activities performed during technical inspection/evaluation events may also require log entries. These may include site visit, interruptions, periodic maintenance, corrective maintenance, and certification.

48. PERFORMANCE EXAMINATIONS.

a. Performance exams shall be documented using the LAD entry. The log should reflect the time required to complete the exam.

b. Other activities performed during a performance exam event may also require log entries. These may include site visit, interruptions, periodic maintenance, corrective maintenance, and certification.

49. EQUIPMENT CHANGES OR REPLACEMENTS.

a. Facility equipment relocation, removal and installation shall be documented using the LAD entry. The date and time when the activity commenced and when it was completed shall be captured in the LAD, along with appropriate details.

b. Other activities performed during the change or replacement of equipment may also require log entries. These may include site visit, interruptions, periodic maintenance, corrective maintenance, and certification.

50. COMMISSIONING/ DECOMMISSIONING ACTIVITIES.

a. The commissioning, decommissioning, or temporary change in facility or service status is captured using the LAD entry. The date and time when the facility or service is actually commissioned or that the change in commissioned status became effective must be included.

b. Other activities performed during this type of event may also require log entries. These may include site visit, periodic maintenance, corrective maintenance, and certification.

51. FACILITY LOG REVIEW.

The Facility log review shall be documented using the LAD entry. The log should reflect the time the review is completed, along with the level of review, the period of review, and any significant discrepancies noted shall be documented in the log entry.

52. PILFERAGE, VANDALISM, OR RELATED EVENTS.

a. Pilferage, vandalism, or events of this nature shall be documented using the LAD entry. All details of the event shall be entered together with all findings and related

coordination.

b. Other activities performed during this type of event may also require log entries. These may include site visit, periodic maintenance, corrective maintenance, and certification.

53. MISCELLANEOUS FACILITY ACTIVITIES.

a. Any maintenance or administrative activity not specifically identified in this order shall be documented using the LAD log entry.

b. Events that may affect a facility shall be noted in the facility log using the LAD entry. Events in the category include:

(1) Delivery or shipment of supplies, parts, instruments and equipment.

(2) Adverse weather conditions that affect facility status.

(3) Commercial power failures that do not result in facility outage.

(4) Visits by regional headquarters or non-FAA personnel.

(5) Site access restrictions, or access road conditions deemed to have an effect on facility status.

(6) Livestock or game on the site.

(7) Any other conditions deemed to have a possible effect on the facility or air traffic operations.

c. When an interruption report would not be required, the information shall be entered into the LAD entry to fully explain the event.

d. Other activities performed, such as a site visit, may also require log entries.

APPENDIX 1. DEFINITIONS.

1. GENERAL. This appendix contains definitions that explain the various logging terms used by Airway Facilities (AF) maintenance personnel. These definitions apply to terms used in maintenance technical directives and may not agree with those used in some FAA reporting systems, data processing systems, etc.

ACTIVITY CODE. A two-digit code which may be combined with a supplemental code to describe the type of activity being logged. Detailed information concerning activity codes is contained in paragraph 33. See CODE CATEGORY.

AF CONTROL CENTER. The AF Control Center is the NAS management entity responsible for coordination with AT or other users of the NAS.

AUTOMATIC LOGGING. A chronological record of events in the form of status data gathered by sensors at a remote location, then sent to a host or master computer, which stores the data in a computer database. This database is typically called a history log/file or activity log/file. It is used to automatically log facility operation status for monitoring and control purposes.

CAUSE CODE. A two-digit code which may be combined with a supplemental code to describe the type of facility or service interruption. Detailed information concerning cause codes is contained in Order 6040.15. See CODE CATEGORY.

CERTIFICATION. Certification is the determination and validation that a system, subsystem, or service is providing or is capable of providing the advertised service to the user. Certification includes an independent determination, which ascertains the quality of advertised services, and a validation, which officially confirms and documents in the maintenance log that advertised services are meeting a standard.

CERTIFICATION PARAMETER.

Certification parameters are selected critical indicators of the quality of the required advertised services being provided to the user of systems, subsystems, equipment, and services.

CODE CATEGORY (CODE CAT). Code category is a two-digit code field, which closely describes the reason for the log entry. For logging interrupts, cause codes are used for the code category. For logging maintenance or administrative activities, activity codes are used for the code category.

COMMISSIONED. A facility is considered to be commissioned if it has been formally accepted and placed into operational use of service in the NAS. It indicates that AF has assumed formal maintenance responsibility.

COMMISSIONING. The formal exercise of incorporating a facility, system, subsystem, or equipment into the NAS. This term has legal and budgetary significance and has been used to justify logistic and manpower operational support as a FAA obligation under public law.

COORDINATED UNIVERSAL TIME (UTC). See UTC. The time provided in worldwide time signal broadcasts used in aviation. It has replaced Greenwich Mean Time (GMT) as the accepted standard clock time in many countries.

CORRECTIVE MAINTENANCE. Corrective maintenance is maintenance performed to identify or correct a problem.

APPENDIX 1. DEFINITIONS (CONTINUED)

ELECTRONIC LOG. A chronological record of all maintenance activities (such as restoration, repair, modification, flight inspections, certification) contained or resident on a software system operating on a computer. It consists of a combination of databases of logged entries and reference tables of data which may be inserted (electronically or manually) into logging entries for validation and linking of information.

EQUIPMENT. Equipment is a complete assembly, operating either independently or within a subsystem or system, that performs a specific function.

FACILITY. Used generically in this order; reference Order 6000.5, Facility Service and Equipment Profile, for other uses of this term.

FACILITY TYPE. An acronym, identified in the current version of Order 1380.40, Airway Facilities Sector Level Staffing Standard System. It is commonly used in the FSEP subsystem to denote a type of facility, e.g., LOC for localizer, ARTCC for air route traffic control center, etc.

FLIGHT INSPECTION. An evaluation, performed with an aircraft, of a NAS facility in order to verify that it meets established tolerances.

HARDWARE. In computer applications, hardware refers to the physical equipment or device(s) used to perform simple or complex functions.

INTERRUPTION. A break in continuity, the loss or unavailability of a facility/service, regardless of duration or cause.

MAINTENANCE. Maintenance, as used in connection with AF systems, subsystems, and equipment, means any specified sequence of steps prescribed to accomplish an activity to verify, continue, or return a system or service to

full operation.

MAINTENANCE ACTIVITY. Any response to a maintenance event that is required to be logged, whether the event was scheduled, unscheduled or administrative. Examples of maintenance activities are arriving or departing unmanned facilities, performing periodic or corrective maintenance.

MAINTENANCE DATA TERMINAL (MDT). An MDT is a computer workstation (may include a laptop computer) that is used to connect directly to operational NAS systems. A MDT is not an integral or imbedded part of any operational NAS system and it can be turned off with no direct negative impact to the operational NAS system.

MAINTENANCE EVENT. Any occurrence or incident that results in maintenance activities to NAS facilities. The event may be externally or internally generated, and can be scheduled, unscheduled or administrative in nature. An example of an externally generated, unscheduled event is an equipment outage due to weather. An example of an internally generated, scheduled event is the performance of an equipment modification. An event typically results in multiple activities.

MAINTENANCE MANAGEMENT SYSTEM (MMS). A software application, which resides on the centralized maintenance processor subsystem (MPS). It provides AF personnel with an electronic method of monitoring, controlling, reporting, and tracking AF maintenance activities.

MAINTENANCE PROCESSOR SUBSYSTEM (MPS). The centralized computer platform on which logging and remote maintenance monitoring activities reside.

APPENDIX 1. DEFINITIONS (CONTINUED)

MAY. As used in maintenance documentation, MAY denotes permission. For example: at navigational aid facilities, certain maintenance activities MAY be performed without recourse to flight inspection. See the current version of Order 1320.1, FAA Directives System. (Also see Shall, Should, and Will.)

MODIFICATION. A modification to a ground facility, system, subsystem or equipment is an alteration in its electrical, mechanical, or physical characteristics, arrangement, configuration, or use that results in a need for:

- a. Changes to record documentation.
- b. Changes to existing standards and tolerances/limits.
- c. The need for establishing new standards and tolerances/limits.

NOTE: See the current version of Order 6032.1, Modifications to Ground Facilities, Systems, and Equipment in the National Airspace System.

MODULE. Analogous to line replaceable unit (LRU). These are the lowest level items within a system or subsystem, which are normally removed and replaced when they fail; e.g., printed circuit cards, etc. In MMS, an inventory of modules is maintained in the FSEP subsystem Module Detail File (FMO), which is used by MMS during LCM log entries.

MONITORS. A monitor is a device designed to detect when a designated parameter has deviated beyond its prescribed tolerance/limit, and then to activate an alarm to this effect or alter the operation or both.

MUST. This is equivalent to Shall. See Shall.

NAS CHANGE PROPOSAL (NCP). The means for proposing changes to NAS configuration items using FAA Form 1800-2, Case File/NAS Change Proposal.

PARENT LOG. The first entry generated for an event or logging activity.

PERIODIC MAINTENANCE (PM). Any scheduled or preventive maintenance activities that include performance checks and/or other maintenance tasks are PM activities.

RELATED LOG ENTRY. A log entry related to an event or activity, which references a common log, ID number.

RESTORATION. Restoration encompasses the maintenance activities required to return a system, subsystem, equipment, or service to normal use following an interruption, equipment failure, or out-of-tolerance/limit condition.

SIMPLIFIED AUTOMATED LOGGING (SAL). A software application. It is an automated logging system used to support MMS.

SHALL. As used in maintenance documentation, SHALL denotes compulsory or mandatory action that the person being directed is obliged to take. For example: The equipment SHALL be adjusted to operate in accordance with directive tolerances. See Order 1320.1. (Also see Should, Will, and May.)

SHOULD. As used in maintenance documentation, SHOULD denotes an action that is desirable but not mandatory. For example: The equipment SHOULD be shut down if, in the opinion of the System Specialist, a failure is imminent. See Order 1320.1. (Also see Shall, Will, and May.)

APPENDIX 1. DEFINITIONS (CONTINUED)

SOFTWARE. A set of programs, procedures, rules, and documentation concerned with the operation of a data processing system; for example, compilers, library routines, and manuals.

SUBSYSTEM. A subsystem is a portion of a system that performs a specific function.

SUPPLEMENTAL CODE. The supplemental code is a single digit field that, used in conjunction with the cause or activity code, will more accurately identify the event or activity being logged.

SYSTEM. A system is a combination of subsystem(s) and/or equipment(s) whose individual functions produce by engineering design a specific operating product in the NAS.

SYSTEM COMPONENT (SYSTEM ELEMENT). This may be a major operating element, active or passive, which would affect the overall performance or characteristics of the system if removed or maladjusted.

SYSTEM SPECIALIST. A member of the FAA work force who maintains AF facilities and services.

TASK. A task is the smallest unit of work in a maintenance activity. Tasks are identified in the lowest subparagraphs of each maintenance technical handbook.

TYPE DESIGNATION. An assigned combination of alphanumeric characters used to identify specific production equipment, custom-built for the FAA. The identification is also imprinted on the equipment nameplate. Examples are FA-9996, FA-7201, RTA-2, ASR-9.

UPLOAD. The process of transferring computer data via communications lines; e.g., from MDT to MPS.

UTC (COORDINATED UNIVERSAL TIME). UTC is the time provided in the worldwide time signal broadcasts used in aviation.

WILL. As used in maintenance documentation, WILL is intended to denote action in the future tense. For example: Obsolete equipment WILL be replaced as soon as funds can be made available. See Order 1320.1. (See also Shall and May.)



U.S. Department
of Transportation
**Federal Aviation
Administration**

MEMORANDUM

Subject: INFORMATION: Suggested improvements to
Order 6000.48A, General Maintenance Logging
Handbook

Date:

From:

**Reply to
Attn of:**

Signature and Title

**Facility Identifier
AF Address**

To: Manager, NAS Policy Division, AOP-300

Problems with present handbook:

Recommended improvements:



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U.S. Department
of Transportation

**Federal Aviation
Administration**

800 Independence Ave., S.W.
Washington, D.C. 20591

FORWARDING SERVICE REQUESTED